FEEDING HABITS OF THE RING-TAILED GECKO, *CYRTODACTYLUS LOUISIADENSIS*. *Memoirs of the Queensland Museum* 39(2): 288. *1996*:- 'Geckos can be voracious predators and will actively pursue and kill their prey. Generally they attack .... arthropods ... head size governs the size of prey. '... (King & Horner, 1993). Notwithstanding the fact that most Australian geckos are opportunistic arthropod feeders, some supplement their diets with plant exudates (Greer, 1989; Bauer, 1990; Ehmann, 1992; Couper et al., 1995) and a few large species prey also on vertebrates (Bauer & Sadlier, 1994). The following Australian species are known to prey on vertebrates: *Nephrurus asper* (including *N. omyoe* and *N. sheai*), *N. deleoni*, *N. laevissimus*, *N. levis*, *N. milli*, *N. stellatus*, *N. vertebralis*, *N. wheeleri*, *Oedura marmorota*, *O. ocellata*, *Phyllurus platurus* and *Pseudothecadactylus lindneri* (Bauer, 1990). All are relatively large (maximum SVLs 80-135mm).

Recent observations made near Cooktown, NEQ, show that another large Australian gecko, *Cyrtodactylus louisiadensis* (maximum SVL 130mm, after Couper & Gregson, 1994), feeds on vertebrates. In July, 1994 in a house near Jensen's Crossing, Endeavour R. (15°25'S 145°04'E), a large (exact measurement not recorded), male *C. louisiadensis* was observed stalking, then 'ambushing' a frog (K.J. & M. Jago). The gecko, alerted by the frog's movement, ran quickly down the wall of the house till it was about .3m from the frog (Litoria pallida) on the floor. It then 'jumped' to the floor and ran quickly a few steps to pounce on the frog which was ingested rapidly. Predation by *C. louisiadensis* on *L. pallido* there is apparently a fairly regular event, because it was observed (K.J. & M. Jago) again soon afterwards (September, 1994). On three subsequent occasions, specimens of *L. pallida* were placed (K.J. & M. Jago) on the floor about 1m from resting, but alert *C. louisiodensis*, low on the house walls. On all occasions their movement triggered the same 'ambush' and voracious ingestion response by the geckos. In early November, 1995 on the granite boulders of the Black Trevethan Ra. (15°40'S, 145°14'E), a specimen of *C. louisiadensis* (SVL 93.6mm, now QMJ60620) was found (L.R., H.J. & D. Cook) with a struggling specimen of the gecko, *Nactus galgajuga* (SVL 30.8mm, now QMJ61096) in its mouth. The latter had been seized midbody.

As other species of *Cyrtodactylus* (*C. cospius* and *C. covernicalus*, from Turkestan, and Borneo respectively) are known to prey on vertebrates (Bauer, 1990), it is not surprising that *C. louisiadensis* also does so. However, predation on frogs is unusual amongst Australian geckos, having been reported only once, by *Pseudothecadactylus linderi* (Husband & Irwan, 1995). The stomach contents of all specimens of *C. louisiadensis* in the collection of the Queensland Museum have been examined. They contain only arthropod remains: Class Chilopoda, unidentified (from QMJ38198); Class Arachnida, unidentified (QMJ27083, QMJ53634), *Heteropoda jugulons* (QMJ38330), *Yiinthi chillagoe* (QMJ45365), *Lychas* sp. (QMJ38331), *Liocheles* sp. (QMJ45365); Class Insecta Order Orthoptera, unidentified (QMJ24493), Family ?Gryllacrididae (QMJ27256), Family Stenopelmatidae (QMJ2431, QMJ55367), Family Gryllidae (QMJ2431, QMJ38197), Order Blattodea Family Blattidae *Methana* sp. (QMJ19327), Family Blaberidae *Laxta* sp. (QMJ38197, QMJ38198, QMJ45365), *Calalampra* sp. 1 (QMJ60863, QMJ60865), *Calolampro* sp. 2 (QMJ60328), Order Lepidoptera, unidentified moth (QMJ38198), Order Hymenoptera Family Formicidae *Oecophyllo smarogdina* (queens) (QMJ60869), Family Vespidae (QMJ38197), Order Coleoptera, unidentified larva (QMJ30062), Family Tenebrionidae (QMJ30063), Family Elateridae (QMJ60869), Family Curculionidae (QMJ30063), nematode presumed to be a parasite (QMJ48084), unidentified possibly moulted skin (QMJ32323, QMJ52850). This is an unremarkable sample of large, mostly nocturnal, arthropods. Two specimens (from QMJ60863 and QMJ60865 from Peach Ck, McIlwraith Ra. 13°45'30"S 145819'30"E) are interesting. They contain wings and other parts of a very large species of the cockroach genus *Colalampra*. The species is probably undescribed and is rare in collections. It would be expected to be an 'under)bark' species which would forage on trunks of trees. Bauer & Sadlier (1994) discuss the relationship between feeding on vertebrates by *Rhacodoctylus ouriculotus* and the enlarged, caniniform teeth unique to this species. They conclude that this dentition may reflect the significance of skinks in the diet of this species, and special requirements for subjugation and handling of such prey. The teeth of *C. louisiodensis* are small. However, the anterior maxillary teeth are 'caniniform' and thus well-suited to capturing and holding large arthropods, and to grasping struggling, small vertebrates as the opportunities present.

Literature Cited

Bauer, A.M. 1990. Gekkonid lizards as prey of invertebrates and predators of vertebrates. Herp Review 21(4): 83-87.

Bauer, A.M. & Sadlier, R.A. 1994. Diet of the New Caledonian gecko *Rhacodactylus auriculatus* (Squamata, Gekkonidae). Russian Journal of Herpetology 1(2): 108-113.

Couper, P.J., Covacevich, J.C. & Wilson, S.K. 1995. Sap feeding by the Australian gecko *Gehyra dubia*. Memoirs of the Queensland Museum 38(2): 396.

Couper, P.J. & Gregson, R.A.M. 1994. Redescription of *Nephrurus asper* Gunther, and description of *N. amyae* sp. nov. and *N. sheai* sp. nov. Memoirs of the Queensland Museum 37(1): 53-67.

Ehmann, H. 1992. Encyclopedia of Australian animals The National Photographic Index of Australian Wildlife, The Australian Museum. (Collins, Angus & Robertson: Sydney). 495pp.

Greer, A.E. 1989. The biology and evolution of Australian lizards. (Surrey Beatty; Chipping Norton). 264pp.

Husband, G. & Irwin, D. 1995. A previously unrecorded prey item for the Giant Cave Gecko (*Pseudothecadactylus lindneri*). Herpetofauna 25(2): 58-59.

King, M. & Horner, P. 1993. Family Gekkonidae. pp. 221-233. In Glasby, C.J., Ross, G.J.B. & Beesley, P. (eds). Fauna of Australia. Volume 2A. Amphibia & Reptilia. (Australian Government Publishing Service: Canberra). 439pp.

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